



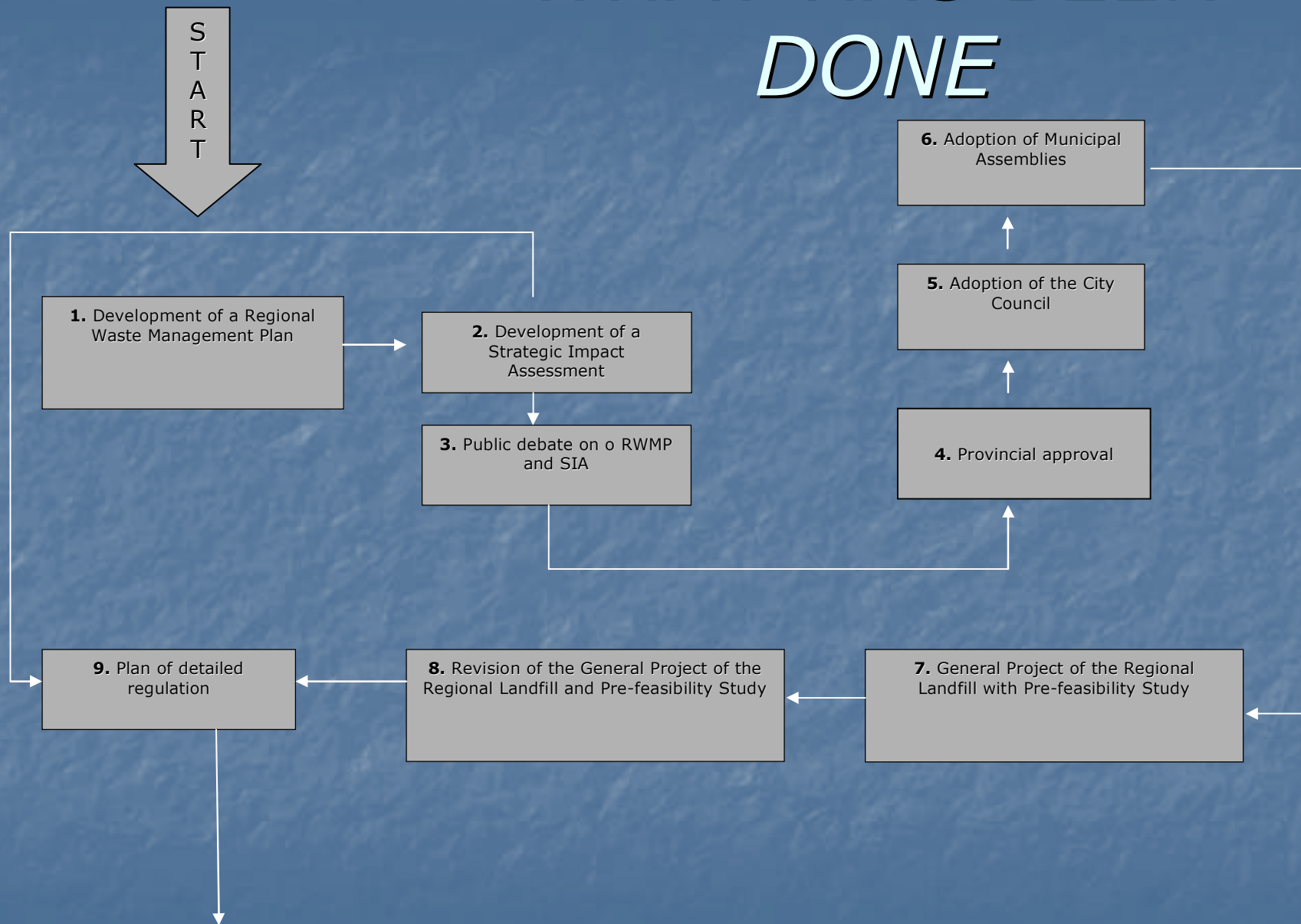
REGIONAL SANITARY LANDFILL ZRENJANIN

CITY OF ZRENJANIN
DEPARTMENT OF ENVIRONMENT

BELGRADE 2012.

DEJAN JOVANOVIĆ/HEAD OF DEPARTMENT
ANA VUJINOVIĆ/HEAD OF PROJECT MANAGEMENT UNIT

WHAT HAS BEEN DONE



WHAT'S TO BE DONE



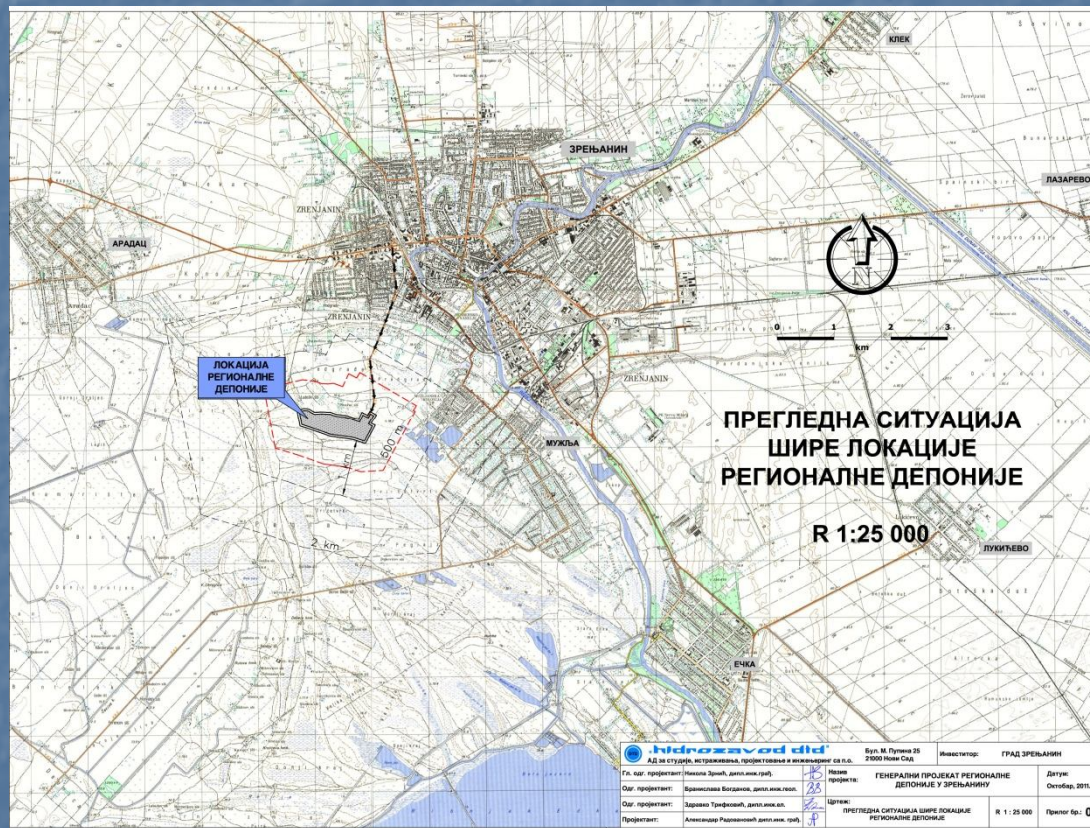
Dynamics of the activities

No.	Activity	Date of completion
1.	Adoption of the Regional Waste Management Plan	01/07/11
2.	Preparation of the General Project of the Regional Landfill	01/11/11
3.	Preparation of Pre-feasibility Study	23/12/11
4.	Revision of the General Project of the Regional Landfill and Pre-feasibility Study	05/04/12
5.	Adoption of a Plan of detailed regulation	
6.	Decision of public interest	
7.	Decisions on expropriation	
8.	Obtaining building permits	
9.	Preparation of a Preliminary design of the Regional Landfill	
10.	Preparation of a Feasibility Study	
11.	Revision of Preliminary design of the Regional Landfill and Feasibility Study	
12.	Study on assessing the environmental impact	
13.	Obtaining approval on the Study on assessing the environmental impact	
14.	Preparation of the Main Project of Regional Landfill	
15.	Revision of the Main Project of Regional Landfill	
16.	Obtaining of building permit	
17.	<i>Cost-Benefit analysis preparation</i>	
18.	The Landfill – a test run	
19.	Obtaining of Integrated permit	
20.	Obtaining a use permit	
21.	The beginning of Regional Landfill work	

WASTE FACTS AND FIGURES

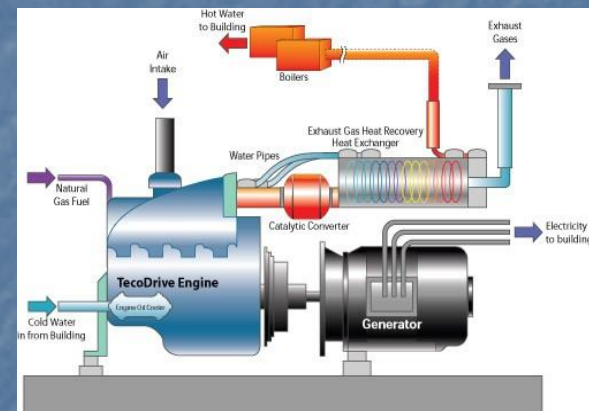
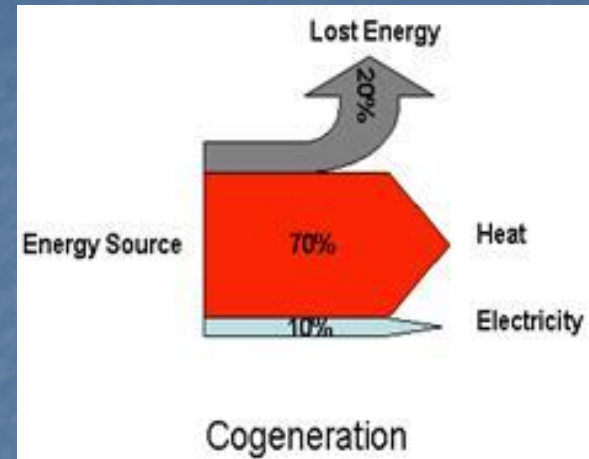
- Region include City of Zrenjanin and Municipalities of Sečanj, Titel, Kovačica and Žitište (**213.000 citizens**)
- According to GP and PFS, total quantity of communal waste is **71.763 t/year**, 0,96 kg/ctz/d, 190 t/d
- Composition: **43 % biodegradable waste** (high methane production), 8% paper, 6% glass, 2% metal, 4% PET, etc.
- Quantity and waste composition determine Waste Management Treatment:
 - waste disposal (on region sanitary landfill)
 - **cogeneration** (on cogeneration plant)
 - recycling (on recycling center)

WASTE DISPOSAL

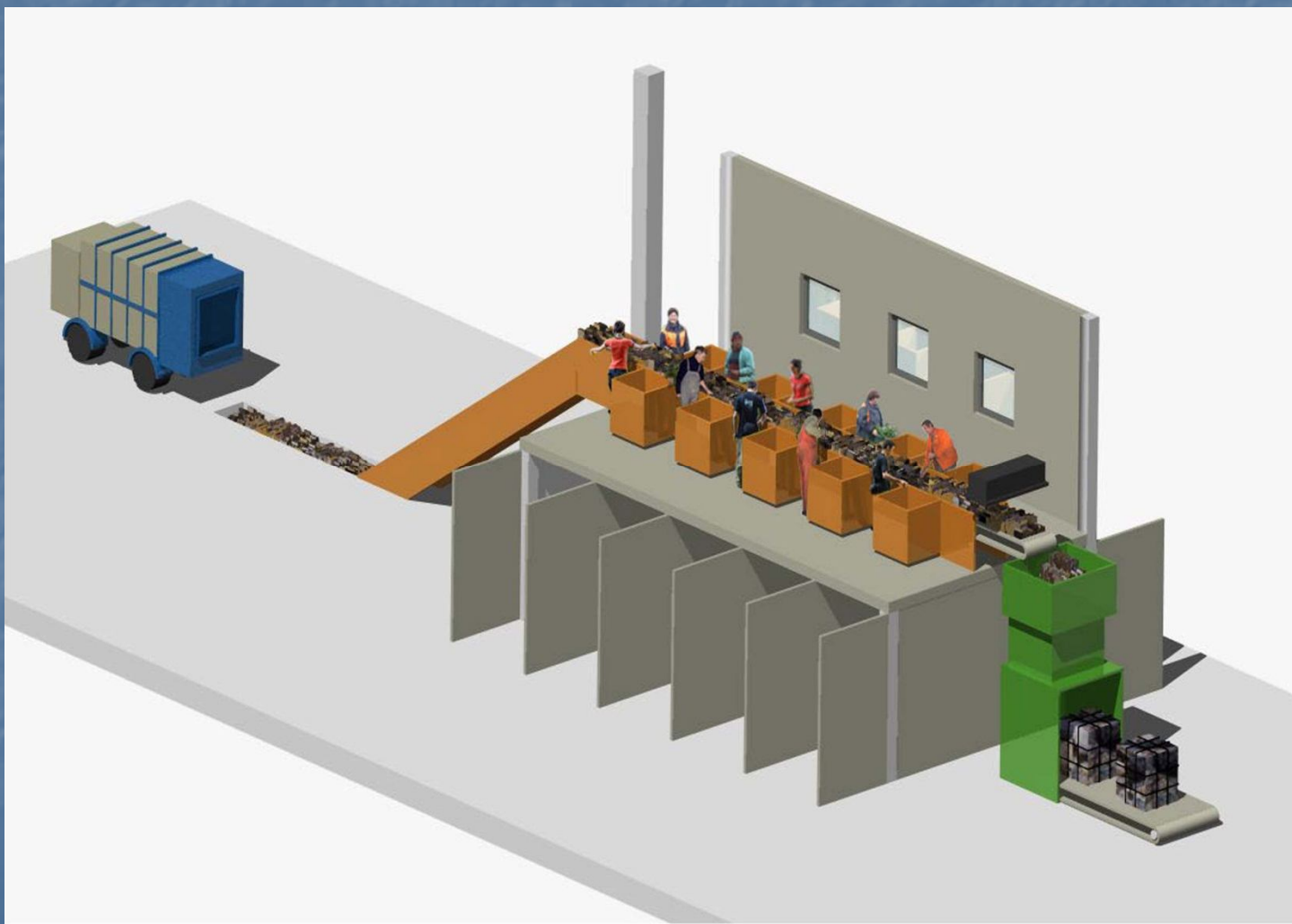


COGENERATION

- Large Quantity of biodegradable waste – large production of methane
- App. 1-1,5 MWee and 2 MWhe during 20 years of degradation



Recycling center



FINANCIAL ASPECTS

- Total costs: 21 mil. €
- Phase building: 5 phases
 - 1. phase: 10 mil. €
 - Recycling center
 - Waste water treatment (aerated lagoons)
 - Cogeneration plant
 - Regional landfill basic infrastructure
 - 1. landfill site (of five) on 5,32 ha for 6 years of waste disposal
- Estimated Time of Disposal – 32 year



THANK YOU FOR THE ATTENTION

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